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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,135	01/17/2002	Milivoje Slobodan Brkovic	13431-9	4768

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EXAMINER

KOBERT, RUSSELL MARC

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/053,135		BRKOVIC ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Russell M Kobert		2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on December 23, 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 6, 7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kerschner et al (4818933).

Kerschner et al anticipates (Figure 10) an apparatus for testing a circuit assembly (60) including a plurality of test pads comprising:

a test fixture base (62) comprising a plurality of conductive pins (described as probing means; see col 10, ln 42-43) having contact surfaces (upper most portion of probing means 63; not labeled in Figure 10 but described in specification (col 10, ln 42-59) defining a first plane;

a test fixture plate (64) in a plane substantially parallel to said first plane, comprising a plurality of compliant pressure pins (66), the compliant pressure pins substantially aligned with the conductive pins;

each conductive pin having a main pin axis and a contact surface for contacting a pad on the circuit assembly, said main pin axis substantially normal to the circuit assembly (clearly shown in Figure 10);

each compliant pressure pin having a main pressure pin axis and a pressure surface, said compliant pressure pin having a resilient compression element (using the embodiment of Figure 15, see item 92), wherein the pressure surfaces and the respective contact surfaces are moveable in relation to each other to force the circuit assembly pad onto the contact surface of said conductive pins (considered the inherent use of the apparatus as described in column 10, lines 42-59) allowing a test current to pass directly through the conductive pins without passing through the compliant pressure pins (since the upper plate of Figure 10 does not carry any probing means as described in Kerschner et al, the pressure pins do not pass a test current); as recited in claim 1.

As to claim 3, the resilient compression element comprising a spring (see Figure 15, item 92) is anticipated by Kerschner et al.

As to claim 6, having the conductive pin comprising a cylinder is considered an inherent characteristic of the probing means drawn in Figure 10.

As to claim 7, having each conductive pin comprising a plurality of cylinders forming a plurality of shoulders for locating the conductive pin in a test fixture base is considered an inherent property of the probing means drawn in Figure 10.

As to claims 10 and 11, the method described is considered the inherent method of using the apparatus of Kerschner et al.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerschner et al (4818933).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have further limited the invention as described in claims 8 and 9 because these claims demonstrate limiting conditions which can be determined by routine experimentation and are considered to be within the scope of the invention as disclosed in Kerschner et al.

Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Swain et al., 33 C.C.P.A. (Patents) 1250, 156 F. 2d 239, 70 USPQ 412 ; Minnesota Mining and Mfg. Co. v. Coe, 69 App. D.C.

217, 99 F. 2d 986, 38 USPQ 213 ; Allen et al. v. Coe, 77  
App. D. C. 324, 135 F. 2d 11, 57 USPQ 136 .

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kerschner et al (4818933) as applied to claim 1 above, and further in view of Shiell (4267506).

Shiell shows a test apparatus (Figure 2) with a pressure pin (10) comprising a resilient compression element (44) made of rubber as mentioned in claim 4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the compression element of Shiell in place of the compression element of Kerschner et al to make the claimed invention because the use of a rubber element permits each pin to move vertically a few thousandths of an inch thus allowing the pin to make point contact with similar gram loading of adjacent pins (col 3, ln 61-68) further improving the distribution of forces from each of the pins.

8. Claims 2, 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerschner et al (4818933) as applied to claim 1 above, and further in view of Prokopp (4926119).

As to claim 2, having a maximum of three conductive pins is within the scope of the apparatus of Prokopp (note: two pins are shown in Figure 1 as an example).

As to claim 5, having each conductive pin comprising a metal selected from the group consisting of brass, copper, nickel, silver, and gold is fully anticipated (col 7, ln 17-21).

As to claim 12, having a maximum of three conductive pins establishing the plane in which the circuit assembly resides is within the scope of the apparatus of Prokopp (note: two pins are shown in Figure 1 as an example).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have combined the teaching of Prokopp with that of Kerschner et al to make the claimed invention because each teach the use of a biasing means for permitting contact between probe pins and a circuit assembly. Moreover, one having ordinary skill in the art would have been motivated to use the conductive properties of the probe pins taught by Prokopp to that of Kerschner et al to further improve electrical conduction during operational testing.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

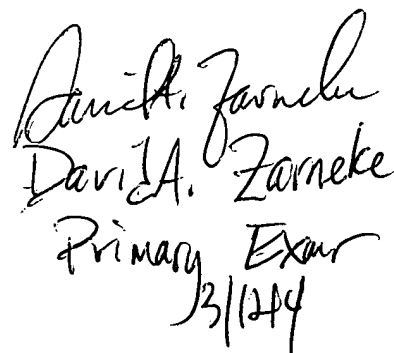
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963.

The Examiner's Supervisor, Kammie Cuneo, can be reached at (571) 272-1957.

For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert  
Patent Examiner  
Group Art Unit 2829  
March 8, 2004



David A. Zarneke  
Primary Examiner  
3/12/04